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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,382	03/06/2001	Aaron W. Ogus	MSFT-0281/163946.1	3313

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EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2127

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,382

Applicant(s)

OGUS ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. In claim 1, the term “a one” (line 16) is indefinite.
- b. In claim 1, the term “receiving first event data” (line 6) is indefinite. The term should be changed to “receiving a first event data.”
- c. In claim 1, the term “receiving second event data” (line 11) is indefinite. The term should be changed to “receiving a second event data.”
- d. In claim 1, “a first data structure” (line 6) is indefinite because it is not made explicitly clear whether this term is related in any way to “first event data.”
- e. In claim 1, “a second data structure” (line 14) is indefinite because it is not made explicitly clear whether this term is related in any way to “second event data.”
- f. In claims 4-5, the term “second one” is indefinite.
- g. In claims 11 and 13, the term “a first one” is indefinite.
- h. In claim 13, the term “advancing said pointer to successive ones” (line 12) is indefinite.

- i. In claim 16, the term “a one” (lines 26-27) is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 16-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jones et al. (hereinafter Jones) (US 6,003,061).**

3. As to claim 16, Jones teaches a system for scheduling future events comprising:
 - a first data structure comprising a plurality of elements, each of said elements corresponding to a time window having a duration (*col. 3, lines 66-67 through col. 4, lines 1-2*); and
 - a scheduling module which receives event data including a time at which an event is to occur, and which associates said event data with a one of said elements, said time being within the time window corresponding to said one of said elements (*col. 19, lines 47-61 and col. 23, lines 5-20*).
4. As to claim 17, Jones teaches wherein said first data structure comprises an array (*see claim 11*).

5. As to claim 18, Jones teaches wherein each of said elements comprises a list pointer, and wherein said scheduling module adds said event data to a list pointed to by said one of said elements (*col. 13, lines 14-44*).

6. As to claim 19, Jones teaches wherein said list comprises a linked list (*col. 22, lines 34-45*).

7. As to claim 20, it is rejected for the same reasons as stated in the rejection of claim 16. In addition, Jones teaches an additional data structure that is separate from other data structures and that does not interfere with the time frame of the other data structure (*col. 19, lines 47-64*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chalmer et al. (hereinafter Chalmer) (US 6,687,903 B1) in view of Weber (US 5,781,769).**

9. As to claim 1, Chalmer teaches a method of scheduling a future event comprising:

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- receiving first event data including a first time at which a first event is to occur (*col. 1, lines 49-54*);
- a first data structure comprising a plurality of elements corresponding to a plurality of time windows of a first duration (*col. 1, lines 49-54 and col. 6, lines 31-44*);
- associating said first event with a one of said first data structure elements, said first time falling within the time window corresponding to said one of said first data structure elements (*col. 1, lines 49-54 and col. 6, lines 31-44*);
- receiving second event data including a second time at which a second event is to occur, said second time not being in any time window represented by an element of said first data structure (*col. 1, lines 49-54 and col. 6, lines 31-44*);
- a second data structure comprising a plurality of elements corresponding to a plurality of time windows of a second duration (*col. 1, lines 49-54 and col. 6, lines 31-44*); and
- associating said second event with a one of said second data structure elements, said second time falling within the time window corresponding to said one of said second data structure elements (*col. 1, lines 49-54 and col. 6, lines 31-44*).

10. Chalmer teaches using and maintaining data structures but fails to explicitly teach creating the data structures. However, Weber teaches scheduling events where data structures are created, searched and maintained (see Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of being able to create data structures so that the timed events could be controlled dynamically (*col. 7, lines 56-65*).

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11. As to claim 2, Chalmer teaches the method of scheduling a future event of claim 1, wherein said first data structure comprises an array (*col. 6, lines 31-44*).
12. As to claim 3, Chalmer teaches the method of scheduling a future event wherein said second data structure comprises an array (*col. 6, lines 31-44*).
13. As to claim 4, Chalmer teaches associating said second event with a second one of said first data structure elements (*col. 6, lines 31-44*).
14. As to claim 5, Chalmer teaches wherein said act of associating said second event with a second one of said first data structure elements occurs after all time windows represented by said first data structure have expired (*col. 12, lines 63-67 through col. 13, lines 13*).
15. As to claim 6, Weber teaches wherein said second duration is greater than said first time duration (*col. 5, lines 44-53*).
16. As to claim 7, Weber teaches wherein each time window of said second duration comprises a period of time represented by the aggregate of all time windows in said first data structure (*col. 5, lines 44-53*).
17. As to claim 8, Chalmer teaches wherein each of said first data structure elements comprises a list pointer, and wherein said associating act comprises: adding to a list associated

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with said one of said first data structure elements a list element indicative of said first event (*col. 1, lines 48-54 and col. 6, lines 31-44*).

18. As to claim 9, Chalmer teaches wherein said linked list pointer comprises an empty list (*col. 9, lines 34-37*).

19. As to claim 10, Chalmer teaches wherein said list comprises a doubly linked list (*col. 13, line 57*).

20. As to claim 11, Weber teaches initiating the events associated with a first one of said elements; and repeating said initiating act for successive ones of said elements at a pre-determined time interval (*see Abstract*).

21. As to claim 12, Chalmer teaches wherein said pre-determined time interval is said first duration (*col. 1, lines 49-65*).

22. As to claim 13, Chalmer teaches wherein said first data structure comprises an array in which said first data structure elements are arranged in an order, and wherein said method further comprising the acts of:

- setting a pointer to point to a first one of said first data structure elements (*col. 6, lines 31-44*);

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- repeatedly advancing said pointer to successive ones of said first data structure elements at a pre-determined time interval (*col. 6, lines 54-67*).

23. As to claim 14, Chalmer in view of Weber fails to explicitly teach wrapping the pointer to a beginning element in the order. However, it is well known in the art and obvious that pointers can be wrapped to go back to the beginning element of the list because it is a common and standard practice for wrapping pointers allocated to a list.

24. As to claim 15, Chalmer teaches a computer-readable medium having computer-executable instructions (*col. 1, lines 13-17*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 8:30AM - 7:00PM, Monday through Thursday.

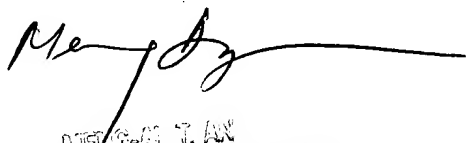
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt

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SUPERVISORY PATENT EXAMINER
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